

Preliminary Amendment

Applicant: Stephan Blaszcak et al.

Serial No.: Unknown

(Priority Application No. DE 102 01 775.1)

(International Application No. PCT/DE03/00083)

Filed: Herewith

(Priority Date January 17, 2002)

(International Filing Date January 14, 2003)

Docket No.: I431.108.101/FIN 317 PCT/US

Title: ELECTRONIC COMPONENT AND PANEL AND METHOD FOR THE PRODUCTION THEREOF

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IN THE CLAIMS

Please cancel claims 1-12.

Please add new claims 13-32 as follows:

Patent ClaimsWHAT IS CLAIMED IS:

1-12. (Cancelled)

13. (New) An electronic component comprising:

a semiconductor chip having edge regions and a back side;

a wiring board; and

a plastic package having first and second plastic package molding compounds arranged one on top of the other, wherein the first plastic package molding compound completely encloses at least the edge regions of the semiconductor chip as a first layer and the second plastic package molding compound is arranged on the back side of the semiconductor chip as a second layer.

14. (New) The electronic component of claim 13, wherein the first plastic package molding compound of the first layer in an uncrosslinked state has a lower viscosity than the second layer.

15. (New) The electronic component of claim 13, wherein the viscosities of the first and second layers in an uncrosslinked state differ in such a way that the viscosity of the first layer is lower by at least an order of magnitude than the viscosity of the second layer.

16. (New) The electronic component of claim 13, wherein the first plastic package molding compound is adapted to application at the edge regions of the semiconductor chip.

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17. (New) The electronic component of claim 13, wherein the second plastic package molding compound is adapted to application over the back side of the semiconductor chip.

18. (New) The electronic component of claim 13, wherein the first and second layers are produced by means of high-pressure injection-molding processes.

19. (New) The electronic component of claim 13, wherein the first and second layers are produced by means of vacuum printing processes.

20. (New) A panel with a number of component positions for electronic components comprising:

a leadframe which has in each component position a bonding channel opening that is filled with a plastic covering compound; and

a number of semiconductor chips each with back sides and with intermediate spaces between them, wherein the intermediate spaces are filled with a first layer of plastic package molding compound and the back sides are covered with a second layer of plastic package molding compound.

21. (New) The panel of claim 20, wherein the plastic package molding compound of the first layer in an uncrosslinked state has a lower viscosity than the second layer.

22. (New) The panel of claim 20, wherein the viscosities of the first and second layers in an uncrosslinked state differ in such a way that the viscosity of the first layer is lower by at least an order of magnitude than the viscosity of the second layer.

23. (New) The panel of claim 20, wherein the plastic package molding compound of the first layer is adapted to application in the intermediate spaces.

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24. (New) The panel of claim 20, wherein the plastic package molding compound of the second layer is adapted to application over the back sides.

25. (New) The panel of claim 20, wherein the first and second layers are produced by means of high-pressure injection-molding processes.

26. (New) The panel of claim 20, wherein the first and second layers are produced by means of vacuum printing processes.

27. (New) A method for producing a panel from a leadframe for a number of electronic components in corresponding component positions with semiconductor chips, which are encapsulated by two layers of a plastic package molding compound, comprising:

providing a leadframe with a number of component positions that have a bonding channel opening at their center;

applying a double-sided adhesive film with a bonding channel opening in the component positions;

applying semiconductor chips with their active upper sides to the double-sided adhesive film;

introducing bonding connections in every bonding channel for electrically connecting contact areas of the semiconductor chip to external contacts on an underside of the leadframe;

filling the bonding channel with a plastic covering compound;

printing a first layer of low-viscosity plastic package molding compound onto back sides of the semiconductor chips for filling intermediate spaces between semiconductor chips on the leadframe;

printing on a second layer of high-viscosity plastic package molding compound for covering the back sides of the semiconductor chips;

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curing the plastic package molding compound to form a closed upper side of the panel; and

applying external contacts to an underside of the panel.

28. (New) The method of claim 27, wherein printing on the first and second layers of low-viscosity and high-viscosity plastic package molding compound takes place by means of screen printing.

29. (New) The method of claim 27, wherein a spatula is pressed under pressure on to a printing screen when printing on the first and second layers of low-viscosity and high-viscosity plastic package molding compound.

30. (New) The method of claim 27, wherein the difference in the viscosity of low-viscosity and high-viscosity plastic package molding compound is set to at least an order of magnitude.

31. (New) The method of claims 27, wherein the second layer of plastic package molding compound is applied with the same printing screen as the first layer of plastic package molding compound.

32. (New) The method of claim 27, wherein the panel is divided into individual electronic components in order to produce an electronic component.